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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,533	12/30/2004	Markus Oles	263593US0XPCT	9525

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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WALTERS JR, ROBERT S

ART UNIT	PAPER NUMBER
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1792

NOTIFICATION DATE	DELIVERY MODE
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03/10/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/518,533	<b>Applicant(s)</b> OLES ET AL.	
	<b>Examiner</b> ROBERT S. WALTERS JR	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-38 is/are pending in the application.
- 4a) Of the above claim(s) 14-24,36 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-35 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/24/2008, 12/12/2008</u> .                                   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Application***

Claims 1-13 are cancelled. Claims 14-38 are pending. Claims 14-24, 36 and 37 are withdrawn. Claims 25-35 and 38 are presented for examination.

### ***Election/Restrictions***

Newly submitted claims 36 and 37 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: These claims depend from a previously withdrawn independent claim.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 36 and 37 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Response to Arguments***

Applicant's arguments with respect to claims 25-35 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Regardless, the applicant's arguments with regards to the novelty of the presently presented claims over Sekutowski is also not persuasive. The applicant argues that Sekutowski actually teaches away from using the presently claimed range, and points to Table VII to support this argument. The examiner disagrees with this contention. This table shows the reduction in

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russetting of "Golden Delicious" apples resulting from application of a conventional pesticide as compared to application of a full rate and a half rate of Translink 77. Both rates of Translink show a significantly beneficial effect in comparison to the conventional treatment. Furthermore, the difference between a half rate and a full rate is very slight, and therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the difference between the use of approximately 1.5% by weight (the half rate), as taught in one of Sekutowksi's examples, and the presently claimed range of 0.01 to 1% would also have been a slight difference. Therefore, Sekutowski does not teach away from the presently claimed invention.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.

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- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code, see page 11. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 25-35 and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new limitation of a range from 0.01-1% does not have support in the specification. The most narrow range presented in the specification is 0.1-2.5%, which is encompassed in the broader ranges presented in the specification of 0.5-5% and 0.01 to 10%. Furthermore, the examples also do not support this lower, narrow range, as all the examples presented have 1% by weight of the nanoparticles. As no examples are presented below 1%, the

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examples therefore can not provide support for this lower, narrow limitation, though they would provide support for the suspensions comprising 1% by weight of nanoparticles.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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2. Claims 25-35 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekutowski et al. (U.S. Pat. No. 6156327).

I. Regarding claims 25-34 and 38, Sekutowski teaches an aqueous surfactant-free suspension comprising an organic solvent, water, and a hydrophobic (column 4, lines 41-42), nanostructured particle, wherein the suspension comprises at least 50.01% by weight of water (column 8, line 64-column 9, line 1 and the hydrophobic particles consist of TRANSLINK 77, talc, and other particles with hydrophobicity imparted by a treatment, see Table III). Sekutowski teaches preparing this solution by suspending the nanostructure particles in an organic solvent miscible with water and having a boiling point less than 150 °C, and then mixing this with surfactant-free water to form the suspension (see column 12, lines 31-34). It should be noted that the term nanostructured particle is a broad term and would encompass any ridge or indentation in the nanoscale range on a particle and does not limit the claim to structures having a defined nanoscale texture on the surface of the particle. Sekutowski teaches that the particles that are preferably used are about 1 micron or less, and these particles, being minerals or treated minerals, would inherently not have a perfectly flat texture and would have imperfections that would correspond to ridges and indentations on the nanoscale range (corresponding to an irregular surface nanostructure with features in the range of 10 to 100 nm), thus reading on the claimed term of nanostructured particle and claim 34. Further, it should be noted that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious

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from a product of the prior art, as in this case, the claim is unpatentable even though the prior product was made by a different process.

Sekutowski further teaches the suspension having 0.1 to 49.9% by weight of methanol (column 12, lines 31-34) and at least 60% water (column 12, lines 31-34). Sekutowski teaches the particles are preferably about 1 micron (column 4, lines 21-25), and may be minerals (column 3, lines 15-19) and may have hydrophobic properties obtained by treatment with an alkyl silane (see Table II, column 6). Sekutowski also teaches the use of solvents other than methanol, such as acetone (column 7, lines 54-67) as well as teaching that the solution only consists of water, the nanoparticles and the organic solvent (see Treatment 3 of Example 5, column 12, lines 31-34).

Sekutowski teaches the particles being present in about 1.5% by weight of the suspension, however fails to teach the particle present in 0.01 to 1% by weight. However, as described above, it would have been obvious to one of ordinary skill in the art at the time of the invention that adjusting the range from approximately 1.5% to the presently claimed range would not have changed the properties of the suspension in a significant manner. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sekutowski by having the particles present in the claimed range. Furthermore, one of ordinary skill in the art at the time of the invention could have modified Sekutowski to use the presently claimed amount of particles with a reasonable expectation of success (as it would be expected, given the arguments presented above, that this suspension would act similarly to the suspension having approximately 1.5% particles) and the predictable result of providing a surfactant-free suspension.

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II. Regarding claim 35, Sekutowski teaches all the limitations of claim 25, but fails to explicitly teach that the particles are not agglomerated. However, Sekutowski does teach that the particles should be finely divided and that most of the particles are dispersed to a small particle size (column 8, lines 11-13). Therefore, based on this teaching, it would be obvious to one of ordinary skill in the art at the time of the invention to modify Sekutowski by ensuring that the particles are not agglomerated. One would have been motivated to make this modification as Sekutowski actually teaches the benefits of the particles being finely divided (column 3, lines 11-14 and column 4, lines 1-20).

### ***Conclusion***

Claims 14-38 are pending.

Claims 14-24, 36 and 37 are withdrawn.

Claims 25-35 and 38 are rejected.

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Thursday, 6:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT S. WALTERS JR/  
March 3, 2009  
Examiner, Art Unit 1792

/Michael Barr/  
Supervisory Patent Examiner, Art Unit

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